

Docket No.: 1268-263

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	:	
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Amiram CARMON <i>et al.</i>	:	Confirmation No. -----
	:	
International Application No. PCT/IL04/001090	:	Group Art Unit: -----
	:	
Filed: November 28, 2004	:	Examiner: -----

For: METHOD AND SYSTEM FOR PATTERNING AN ORGANIC LIGHT EMITTING  
DIODE DISPLAY BY PRINTING

**PRELIMINARY AMENDMENT**

**ATTN: BOX PCT**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Preliminary to examination of the referenced application, please enter the following amendments and remarks.

**AMENDMENTS TO THE SPECIFICATION:**

**Please enter the attached Substitute Specification which does *not* include new matter.**

**Abstract:**

Please enter the attached new Abstract.

**ABSTRACT**

A device having a static image capable of self-illumination when activated, and comprising constituent pixels printed using a light emitting ink on a layer of an organic light emitting diode (OLED) device so as to form a pattern whose contour is determined only by the pixels and does not require pre-shaping of the layer. The pixels may be printed using ink jet technology on a layer of the OLED, such as the PEDOT layer or cathode of the OLED requiring only a single anode and cathode for activating all the pixels simultaneously thus avoiding a need for separate addressing of selected pixels. Colored pixels may be formed by using different colored light emitting inks.

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

1. (Original) A method for creating a static image capable of self-illumination, said method comprising:

printing constituent pixels of said image using a light emitting ink on a layer of an organic light emitting diode (OLED) device so as to form a pattern whose contour is determined only by said pixels and does not require masking or pre-shaping of the layer; and

providing a cathode and an anode for applying voltage across the OLED.

2. (Original) The method according to claim 1, including:

generating half tone color separation masks each corresponding to a respective color component of said pixels and to a neutral background color;

printing the pixels corresponding to the color components using respective light emitting inks; and

printing the pixels corresponding to the neutral background color using an ink that is neither light emitting nor electrically conductive.

3. (Currently amended) The method according to claim 1 ~~or 2~~, further including activating a process printer so as to print said color components separately.

4. (Currently amended) The method according to ~~any one of claims 1 to 3~~ claim 1, wherein a single anode and a single cathode are provided for activating all of said pixels simultaneously thus avoiding a need for separate addressing of selected pixels.

5. **(Currently amended)** The method according to ~~any one of claims 1 to 4~~ claim 1, wherein said pixels are printed on a PEDOT layer or a cathode of the OLED.

6. **(Currently amended)** The method according to ~~any one of claims 1 to 5~~ claim 1, wherein the pixels are formed using different colored light emitting inks.

7. **(Currently amended)** The method according to ~~any one of claims 1 to 6~~ claim 1, wherein light saturation of selected pixels is varied by depositing a greater thickness of light emitting ink where higher saturation is required.

8. **(Currently amended)** The method according to ~~any one of claims 1 to 7~~ claim 1, wherein said pixels are printed using ink jet technology.

9. **(Currently amended)** The method according to ~~any one of claims 1 to 8~~ claim 1, further including processing the image as in conventional printing to effect compensation and/or adjustment of the image.

10. **(Currently amended)** The method according to ~~any one of claims 1 to 9~~ claim 1, wherein the processing includes pre-processing the image by screening and dithering.

11. **(Currently amended)** The method according to ~~any one of claims 1 to 10~~ claim 1, further including encapsulating the layer having said the pattern printed thereon within a device.

12. **(original)** A device having a static image capable of self-illumination when activated, said device comprising:

constituent pixels of said image printed using a light emitting ink on a layer of an organic light emitting diode (OLED) device so as to form a pattern whose contour is determined only by said pixels and does not require pre-shaping of the layer.

13. (original) The device according to claim 12, wherein pixels corresponding to a neutral background color are formed of an ink that is not light emitting.

14. (Currently amended) The device according to claim 12~~-or 13~~, wherein pixels corresponding to a neutral background color are formed of an ink that is not electrically conductive.

15. (Currently amended) The device according to ~~any one of claims 12 to 14~~ claim 12, including a single anode and a single cathode for activating all of said pixels simultaneously without requiring separate addressing of selected pixels.

16. (Currently amended) The device according to claim 12~~-or 13~~, wherein said pixels are printed on a PEDOT layer or a cathode of the OLED.

17. (Currently amended) The device according to ~~any one of claims 12 to 15~~ claim 12, wherein the pixels comprise different colored light emitting inks.

18. (Currently amended) The device according to ~~any one of claims 12 to 16~~ claim 12, wherein a thickness of selected ones of said pixels is varied according to a predetermined light saturation to be associated with said selected pixels.

19. (Currently amended) The device according to ~~any one of claims 12 to 17~~ claim 12, wherein said pixels are printed using ink jet technology.

20. (Currently amended) The device according to ~~any one of claims 12 to 18~~ claim 12, being a decorative tile.

21. **(Currently amended)** The device according to ~~any one of claims 12 to 18~~ claim 12, being a stained glass window having a single panel on which are printed contiguous areas of light emissive color.

22. (original) The device according to claim 20, further including black lines printed so as to overlap a respective common boundaries between contiguous colored areas.

23. **(Currently amended)** The device according to ~~any one of claims 12 to 18~~ claim 12, being a greeting card.

24. (original) A decorative tile having a pattern formed on a layer of an OLED.

25. (original) A stained glass panel on which are deposited contiguous areas of light emissive color on a layer of an OLED.

26. (original) The stained glass panel according to claim 24, further including black lines deposited so as to overlap a respective common boundaries between contiguous colored areas.

27. (original) A greeting card having a pattern formed on a layer of an OLED.

**REMARKS**


The claims of the referenced application have been amended to remove multiple dependencies in order to comply with U.S. Patent Practice and to reduce filing costs. The specification has been amended to place the application in better form. No new matter has been introduced by the foregoing amendments.

Entry is in order.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

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